

REMARKS

This Amendment is being filed in response to the Office Action mailed November 9, 2009, which has been reviewed and carefully considered. Reconsideration and allowance of the present application in view of the remarks to follow are respectfully requested.

Claims 1-20 are pending in this application, where claim 20 has been currently added. Claims 1 and 9 are independent.

In the Office Action, the Examiner objected to the drawings because of lack of labels. In response, labels have been added to FIGs 1-2. Replacement sheets including FIGs 1-2 are enclosed. Applicant respectfully requests approval of the enclosed proposed drawing changes and withdrawal of the drawing objection.

In the Office Action, claims 1-10 and 15 are rejected under 35 U.S.C. §103(a) over U.S. Patent No. 7,136,817 (Schroder) in view of U.S. Patent No. 7,050,971 (Kaufholz) and U.S. Patent Application Publication No. 2002/0150263 (Rajan). Further, claims 11-14 and 16-19 are rejected under 35 U.S.C. §103(a) over Schroder in view of Kaufholz, Rajan and U.S. Patent Application Publication No. 2002/0181723 (Kataoka). It is respectfully submitted that claims 1-20 are patentable over Schroder, Kaufholz, Rajan and Kataoka for

at least the following reasons.

Schroder is directed to voice control of a device where voices of users are characterized to distinguish or identify the speech inputs of different users. This enables the device to recognize and respond only to a particular user. Schroder uses user **profiles** to distinguish or identify the speech inputs of different users.

On page 5, first full paragraph, column 2, lines 39-44, column 3, lines 49-52, and column 1, lines 44-47 of Schroder are cited to allegedly show that a "subsequent utterance originating from the second position will be discarded if not preceded by the recognition of the predetermined keyword originating **from the second position**," as recited in independent claim 1, and similarly recited in independent claim 9. (Illustrative emphasis provided)

This allegation is respectfully traversed. In particular, the noted sections specifically recite the following, where column 2, lines 39-44 recites:

Similarly, an operator-control command which, after its input by the first user, allows voice commands from a second user to be accepted may be advantageously provided. This makes it possible to pass on operator-control authority in a way corresponding to the passing on of a remote control unit from a first user to a second user. (Emphasis added)

Column 3, lines 49-52 recites:

If this is the case, the input command for controlling the voice-controlled system is used in method step 8, for example for menu control or navigation. (Emphasis added)

Column 1, lines 44-47 recites:

Convenience can be enhanced if, for speech input, one or more microphones are provided in the device appertaining to consumer electronics, so that the user can carry out operator control from any desired place in the room without taking along the remote control unit. (Emphasis added)

The above-noted portions of Schroder merely refer to controlling a device by voice using microphones and passing the control from one user to another. Such a disclosure has nothing to do and does not disclose or suggest with discarding anything, let alone discarding a subsequent utterance from the second position, and doing so if the subsequent utterance is not preceded by the recognition of the predetermined keyword originating from the second position, as recited in independent claims 1 and 9.

Even assuming, arguendo, that the noted portions of Schroder have something to do with discarding, which they do not, there is still no disclosure or suggestion of discarding an utterance "originating from the second position ... if not preceded by the recognition of the predetermined keyword originating from the

second position," as recited in independent claim 1, and similarly recited in independent claim 9. (Illustrative emphasis provided)

Even further assuming, arguendo, that these features are somehow disclosed or suggested in Schroder, page 5, last paragraph of the Office Action correctly notes that Schroder and Kaufholz do not disclose or suggest the following features recited in independent claim 1, and similarly recited in independent claim 9 (illustrative emphasis provided):

wherein the recognition of the predetermined keyword at the second position calibrates the beam forming module to follow the user from the first position to the second position so that the subsequent utterance originating from the second position are accepted while utterances of other users at other positions are discarded, the second position including an orientation and a distance relative to the microphone array, and the speech control unit being configured to discriminate between sounds originating from users who are located in front of each other relative the microphone array.

Rajan is cited in an attempt to remedy the deficiencies in Schroder and Kaufholz.

Rajan is directed to a signal processing system which receives signals from different users and sensors. The Rajan system separates signals from each of the sources or users 1-1, 1-2, 1-3 in a meeting, as shown in FIG 1 and described in paragraph [0022].

It is respectfully submitted that separating or isolating signals does not disclose or suggest discarding any signal. While Rajan discloses to separate signals from different users/sources, there is no disclosure or suggestion in Rajan that "utterances of other users at other positions are discarded," as recited in independent claim 1, and similarly recited in independent claim 9.

(Illustrative emphasis provided)

Further, paragraph [0057], last eight lines of Rajan recite:

The predetermined curved plots used may be circular arcs, in which case, the spectrogram processing module 33 will be able to estimate, not only the direction from which the speech emanated, but also the distance from the microphones of that user (since it would be able to determine the centre of the circle corresponding to the circular arc which fits the determined time delay values).

While paragraph [0057] of Rajan discusses estimating the distance of a user from the microphones, paragraph [0057] is completely silent and does not disclose or suggest that "the speech control unit being configured to discriminate between sounds originating from users who are located in front of each other relative the microphone array," as recited in independent claim 1, and similarly recited in independent claim 9. (Illustrative emphasis provided) Determining distances between users and

microphones does not disclose or suggest to discriminate between sounds originating from users who are located in front of each other relative the microphone array. Further, FIG 1 of Rajan shows three users sitting around a table, where none of the users are located in front of each other relative the microphone array.

In summary, it is respectfully submitted that Schroder, Kaufholz, Kataoka, and combination thereof, do not teach or suggest the present invention as recited in independent claim 1, and similarly recited in independent claim 9 which, amongst other patentable elements, recites (illustrative emphasis provided):

the speech control unit being arranged to control the beam forming module, on basis of the recognition of the predetermined keyword, in order to enhance second components of the audio signals which represent a subsequent utterance originating from a second position of the user relative to the microphone array;

wherein the recognition of the predetermined keyword at the second position calibrates the beam forming module to follow the user from the first position to the second position so that the subsequent utterance originating from the second position are accepted while utterances of other users at other positions are discarded, the second position including an orientation and a distance relative to the microphone array, and the speech control unit being configured to discriminate between sounds originating from users who are located in front of each other relative the microphone array; and

wherein the subsequent utterance originating from the second position will be discarded if not preceded by the recognition of the predetermined keyword

originating from the second position.

Discriminate between sounds originating from users who are located in front of each other relative the microphone array, accepting a subsequent utterances originating from the second position while discarding utterances of other users at other positions, and discarding the subsequent utterance originating from the second position if not preceded by recognition of the predetermined keyword originating from the second position, are nowhere disclosed or suggested in Schroder, Kaufholz and Rajan, alone or in combination. Kataoka is cited to allegedly show other features and does not remedy the deficiencies in Schroder, Kaufholz and Rajan.


Based on the foregoing, it is respectfully submitted that independent claims 1 and 9 are allowable over Schroder and Kaufholz, and notice to this effect is earnestly solicited. Claims 2-8 and 10-20 respectively depend from one of claims 1 and 9 and accordingly are allowable for at least this reason as well as for the separately patentable elements contained in each of said claims. Accordingly, separate consideration of each of the dependent claims is respectfully requested.

In addition, Applicant denies any statement, position or

averment of the Examiner that is not specifically addressed by the foregoing argument and response. Any rejections and/or points of argument not addressed would appear to be moot in view of the presented remarks. However, the Applicant reserves the right to submit further arguments in support of the above stated position, should that become necessary. No arguments are waived and none of the Examiner's statements are conceded. And in particular, no Official Notices are conceded.

In view of the above, it is respectfully submitted that the present application is in condition for allowance, and a Notice of Allowance is earnestly solicited.

Respectfully submitted,

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February 1, 2010

Enclosure: Replacement drawing sheets (2 sheets including FIGs 1-2)

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